

The Galvin Electricity Initiative commends the ICC for reaching out to utilities and industry to obtain input on this important opportunity. We offer the following comments for your consideration:

1. Consider evaluating how the Illinois utilities can facilitate (e.g. lower cost, easier application process, etc...) the integration of PEV with solar PV, storage, backup power, and other site generation.
2. Consider an assessment of how to implement metering in a way that does not require a separate meter for PEV, Solar PV, electricity storage, and other site generation. Given the rapid innovation expected in advanced metering, consider developing meter standards which allow the consumer to select an advanced meter that meets utility standards while accomplishing all of the consumer's needs. Consumers may want advanced meters that also measure separately all major loads and allow them to engage in ancillary service markets.
3. The PEV introduces a new major load into buildings which can stress the distribution system further during daily peak demand periods. Consumers today, for the most part, do not receive any price signals that reflect the high cost of serving daily peak demand. The discussion about PEV peak demand issues raises concerns regarding the use of other high demand electricity devices on the cost of electricity for all consumers. The PEV may be one of many large peak load devices in a home (e.g. electric dryer 4kW, electric water heater 4kW, dishwasher 3kW, electric AC 3kW, microwave 1.5 kW, and hair dryer 2kW - <http://michaelbluejay.com/electricity/howmuch.html> ). Because of the lack of market pricing, users with lower peak demands during peak periods are subsidizing those consuming large peak demands during peak periods. Distribution and energy costs could reflect the actual cost of serving peak loads (e.g. 4-7pm, page 35 of ComEd report).
  - a. Consider evaluating the deployment of a full range of dynamic pricing for consumers. This includes demand charges and time of use distribution charges. This also includes a full range of dynamic pricing (e.g. time of use, flat rates based on load profiles, etc...) for customers still be supplied on the default energy rates.
  - b. Consider evaluating how to provide consumers with full access to all of the MISO and PJM market pricing programs (real-time, day-ahead, demand response, capacity, etc...).
4. Consider the impacts of utility direct PEV control which may not be well received by consumers who may worry that they won't get a full charge (Tribune 12/26/10 article reported 3kW - 20 hour charge time for Nissan Leaf with 110/120 volt charger, or 7kW - 8 hour charge with a 220/240 volt charger).
5. Also, consider analyzing the potential for using the PEV battery for peak load reduction and backup power. If consumers have access to the full range market pricing, there may be incentive to invest in this capability, <http://www.govtech.com/products/Electric-Vehicle-Batteries-Could-Reduce-Household.html> . Mitsubishi Motors introduced a concept PEV car in 2009 that can provide electricity to the home, [http://techon.nikkeibp.co.jp/english/NEWS\\_EN/20091022/176678/](http://techon.nikkeibp.co.jp/english/NEWS_EN/20091022/176678/)